

Holzner and given to Mr. Kelsey, but the description fits it closely. I do not know what became of Mr. Kelsey's shell.) In the latter publication, Dall recognized Hemphill's name and so evidenced his belief that there were two imperforate forms, one normal and the other pathological, and the fact that the specimen which he figured as *H. c. holzneri* is obviously not that form does not vitiate this interpretation. Dall's name cannot be used as there was a prior *Haliotis imperforata* of Gmelin, 1791 (Syst. Nat., ed. 13, I, p. 3690), now known to be a synonym of *Stomatia phymotis* Helbling.<sup>7</sup> On account of this preoccupation of the name imperforata Finlay<sup>8</sup> renamed this form *H. c. lusus* and this seems to be the correct name by which it will be known. The thought sometimes expressed that the normally imperforate variation is unworthy of a separate name is, I think, not well taken, for surely the complete absence of perforations should be accorded as much taxonomic significance as variations in their number, size, or position.

There are several other well recognizable varieties of black abalone, but the discussion of their validity must be deferred until more material is at hand.

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## A NEW VARIETY OF SUCCINEA FROM JAPAN

BY GORDON K. MACMILLAN  
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SUCCINEA LAUTA SPHAERICA var. nov. Pl. 5, fig. 3.

Shell ovate, quite globose, dark amber colored, thin, fragile, pellucid; periostracum shining, minutely wrinkled obliquely, rougher towards aperture, with a malleated appearance; spiral striae weak, more prominent towards the suture; suture moderately impressed; spire very small, not prominent, not pointed; whorls  $3\frac{1}{2}$ , rounded, last very large, expanded, and inflated; aperture oval, very large, expanded, slightly oblique at the outer margin, parietal wall and columellar margin with a slight callus deposit; peristome acute, simple, thin; columella thin, sharp, narrowed. Height 24.1 mm.; breadth 14.6 mm.

<sup>7</sup> I am indebted to the late Mr. E. G. Vanatta for this information.

<sup>8</sup> Trans. New Zealand Inst., v. 57, p. 492, 1927.

*Type Locality*: Tobi Shima, Ugo, Japan. *Holotype*: Carnegie Museum No. 62.39794, Section of Invertebrates. *Paratypes*: Academy of Natural Sciences of Philadelphia No. 84867 and Carnegie Museum No. 62.15753 and No. 62.39795, Section of Invertebrates.

The measurements of the paratypes in the collection of the Carnegie Museum and the Academy of Natural Sciences are as follows: Height: 19.8–24 mm. Breadth: 11.8–14.5 mm.

*S. l. sphaerica* is a much more globose shell than *S. lauta*; the spire is blunter, the whorls of which do not form a pointed apex; the surface of the shell is more coarsely sculptured and more malleated towards the aperture; the whorls are rounder; and the aperture is much more rounded and expanded.

This new variety is apparently *Succinea lauta* var. that Dr. W. Kobelt mentions and figures in "Fauna Molluscorum Extramarinorum Japoniae," 1879, p. 102, pl. 7, fig. 21b. It is *Succinea lauta* Gould from Tobishima, Ugo, in Y. Hirase, "The Conchological Magazine," vol. 3, No. 3, March 1909, p. 21, and *Succinea lauta* Gould (var.), specimen number 1044, from Tobishima, Ugo, on page 22 of "The First Additional Catalogue of the Land Shells of Japan to be had of Y. Hirase," 1908.

Daniel B. Langford in his article "Hunting Eulota (*Karafka-helix*) *fiscina* Fulton, in Saghalien" (*Naut.*, 41, 1927, 40) mentions *Succinea lauta karafkaensis* Pilsbry, which had been collected on decaying logs and stumps and under bark at Ichinosawa, Kiminai, and Kawakami on Saghalien Island. Dr. Pilsbry informs me that it is of more slender shape than *S. lauta* or *S. lauta sphaerica*.

Tobi Shima is a small island situated about nine miles west of Kisakato in the Province of Ugo on the Island of Honshu.

At present *Succinea lauta* has been collected at the following localities in Japan:

Tokyo, Saitama, Honshu Island  
Nikko, Totshigi, Honshu Island  
Sotakaifumura, Sado Island  
Hakodate, Hakodate, Hokkaido Island  
Kigokawa, Ojima, Hokkaido Island  
Nishigo, Uzen, Honshu Island  
Sapporo, Sapporo, Hokkaido Island

Of these records, the shells from Sado Island and Uzen Province are the closest to Tobi Shima and which are south and southwest of this locality. Since specimens of *S. lauta* have also been collected from Hakodate, Hokkaido Island, which is north of Tobi Shima, there is the possibility that *lauta* exists in the intervening territory, and it is on this assumption that *sphaerica* has been made a variety of that species.

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## ADDITIONAL NOTES ON THE FOREIGN SNAILS OF LOUISIANA

BY HAROLD W. HARRY

After I had submitted previous notes on this subject (Nautilus, 62: 1, pp. 20-24, July 1948), several additional data came to light. Chance alone accounts for the finding of Taylor's (1899) report of *Limax flavus* in North Louisiana. The obscurity of the "Gulf Fauna and Flora Bulletin," only three numbers of volume one having appeared, may allow a brief summary of his article.

Having observed this slug over a period of several years, Taylor pronounced it the most abundant mollusk at Ruston. Oviposition was reported from February to December, with possibly more than one generation per year. During an unusually severe freeze of 1898-99 he thawed these slugs from ice and found them viable, and slugs under boards buried in the snow were crawling about. Dryness was found to be a more important limiting factor than cold. At the turn of the century, *L. flavus* was considered a pest, as contaminants of the open wells which were then the chief source of drinking water in the area. If not quickly removed, those which fell into the water rotted and produced obnoxious odors; this often necessitated bailing out the well, and in some cases its abandonment. Taylor suggested that the presence of slugs in the water might lead to disease. As remedial measures he proposed removing all moisture-retaining rubbish from about the well, using tar, sand, salt, ashes or sawdust as barrier-irritants, and keeping a few ducks about to eat the slugs; chickens found them distasteful.